

Curriculum KJEM 214, autumn 2017.

BOOK: "Introduction to Applied Colloid and Surface Chemistry",

Georgis M. Kontogeorgis, Søren Kiil, John Wiley & Sons, Ltd., 2016

The curriculum consists of the following parts of the book:

1. Introduction to Colloid and Surface Chemistry
2. Intermolecular and Interparticle Forces
3. Surface and Interfacial Tension – Principles and Estimation Methods
4. Fundamental Equations in Colloid and Surface Science
5. Surfactants and Self-assembly. Detergents and Cleaning
6. Wetting and Adhesion; except chap.6.3 & 6.4
7. Adsorption in Colloid and Surface Science – A Universal Concept
8. Characterization Methods of Colloids – Part I: Kinetic Properties and Rheology
9. Characterization Methods of Colloids – Part II: Optical Properties (Scattering, Spectroscopy and Microscopy)
10. Colloid Stability – Part I: The Major Players (van der Waals and Electrical Forces)
11. Colloid Stability – Part II: The DLVO Theory – Kinetics of Aggregation
12. Emulsions
13. Foams

+ powerpoint presentations given at the lectures